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10/760,447	01/20/2004	Richard Dean Dettinger	ROC920030372US1	9232

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EXAMINER	
DEBELIE, MITIKU W	

ART UNIT	PAPER NUMBER
2621	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/760,447	DETTINGER ET AL.	
	Examiner	Art Unit	
	Mitiku Debelie	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 January 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 - 25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 - 25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *20 January 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *01/20/2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. **Claims 12 – 16** are rejected under 35 U.S.C. 101 the claimed invention is directed to non-statutory subject matter as follows. Claim 12 defines a signal-bearing medium encoded with instructions, wherein the. The claimed invention would have been statutory had it been worded to include computer program embedded in a computer readable medium. Computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationship between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See Lowry, 32 F.3d at 1583-84, 32 USPQ2d at 1035.

Claims 12 – 16 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter as follows. Claims 12 define a signal-bearing medium with descriptive material. While "functional descriptive material" may be claimed as a statutory product (i.e., a "manufacture") when embodied on a tangible computer readable medium, a signal embodying that same functional descriptive material is neither a process nor a product (i.e., a tangible "thing").

The USPTO "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" (Official Gazette notice of 22 November 2005), Annex IV, reads as follows:

> Claims that recite nothing but the physical characteristics of a form of energy, such as a frequency, voltage, or the strength of a magnetic field, define energy or magnetism, per se, and as such are

> nonstatutory natural phenomena. O'Reilly, 56 U.S. (15 How.) at 112-14. Moreover, it does not appear that a claim reciting a signal encoded with functional descriptive material falls within any of the categories of patentable subject matter set forth in Sec. 101.
>
> ... a signal does not fall within one of the four statutory classes of Sec. 101.
>
> ... signal claims are ineligible for patent protection because they do not fall within any of the four statutory classes of Sec. 101.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite in that it fails to point out what is included or excluded by the claim language. "[A]n importance of criteria" recited in line 2 of claim 6 is vague and indefinite.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Elcock et al. (U.S. Pub. No. 2005/0160308).

Regarding claim 1, Elcock discloses a method comprising: if a threshold is exceeded, selecting a program based on a criteria (paragraph [0036], program requires more storage space than currently available on the primary storage device.); and changing the compression level of the program, wherein changing further reduces an amount of storage consumed by the program and causes an unrecoverable loss of data (see Fig. 3, paragraph [0036]).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 2, 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Elcock et al. (U.S. Pub. No. 2005/0160308) as applied to claim 1 above, and further in view of Potrebic et al. (U.S. Patent Number 7,088,910).

Regarding claim 2, note the discussion of Elcock in claim 1 above. Elcock does not teach a method of compression where in the program to be compressed is selected based on a ranking of a category to which the program belongs. Potrebic, from the same field of endeavor teaches selecting a program from a plurality of programs based

on a ranking (priority) of a category to which the program belongs (see col. 3, lines 57 - 67, and col. 4, lines 1 – 6).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate determining which program to alter based on the priority (ranking) in order to keep the programs with high ranking from loosing viewing quality.

Regarding claim 6, claim 6 recites, "The method of claim 1, wherein the selecting further comprises: selecting the program based on a criteria and importance of the criteria." As best understood by the examiner, this claim reads on claim 2 above. (One who is ordinarily skilled in the art recognizes that the limitations of both of these claims refer to the same concept.

Regarding claim 7, all the limitations of this claim have been analyzed in relation to claims 1 and 2.

8. Claims 3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Elcock et al. (U.S. Pub. No. 2005/0160308) as applied to claim 1 above, and further in view of Ernst et al. (U.S. Publication Number 2004/0103215).

Regarding claim 3, note the discussion of Elcock in claim 1 above. Elcock does not teach a method of compression where in the program to be compressed is selected based on whether the program previously had compression level changed. In the same field of endeavor, Ernst teaches selecting a program based on whether the program

previously had the compression level changed (see Fig. 3, Fig. 4, step 435 and paragraph [0021]).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the method of selecting compressible program based on its prior compression history as taught by Ernst to the compression method of Elcock in order to avoid loss of valuable data by over compressing.

Regarding claim 5, Ernst teaches a method of selecting a program for compression based on a difference between a current compression level of the program and a minimum compression level of the program (see Fig. 4, decision block 410, Fig. 6, decision block 615, paragraph [0023]).

9. Claims 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Elcock et al. (U.S. Pub. No. 2005/0160308) as applied to claim 1 above, and further in view of Garrison et al. (U.S. Publication Number 2005/0135779).

Regarding claim 4, note the discussion of Elcock in claim 1 above. Elcock does not teach a method of compression where in the program to be compressed is selected based on an age of the program. Garrison, from the same field of endeavor, teaches a method of selecting a program from a plurality of programs based on an age of the program (see paragraph [0021]).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention incorporate the method of selecting a program to be altered based on

compression disclosed by Elcock in order to give programs more storage life thereby letting the user have more time view the program with its original quality.

10. Claim 8, 10 – 12, 14, 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Elcock et al. (U.S. Pub. No. 2005/0160308) as applied to claim 1 above, and in view of Potrebic et al. (U.S. Patent Number 7,088,910) and further in view of Ernst et al. (U.S. Publication Number 2004/0103215).

Regarding claim 8, grounds for rejecting claim 3 apply for claim 8 in its entirety.

Regarding claim 10, grounds for rejecting claim 5 apply for claim 10 in its entirety.

Regarding claim 11, claim 11 recites, "The method of claim 7, wherein the means for selecting further comprises: means for selecting the first program from the plurality of programs wherein the changing the compression level of the first program saves a largest amount of space in the storage among the plurality of programs." This claim reads on the limitation, "[increasing] changing the compression level of the program, wherein changing further reduces an amount of storage consumed by the program" which is analyzed in relation to claim 1 above. (For every increase in compression level, it is well known that the storage will have more space.)

Regarding claim 12, all the limitations of this claim have been analyzed in relation to claims 1, 2 and 3 above.

Regarding claim 14, claim 14 recites "The signal-bearing medium of claim 12, wherein the selecting further comprises: selecting the first program based on a difference between a current compression level of the first program and a minimum compression level of the first program." This claim reads on claim 5 above.

Regarding claim 15, grounds for rejecting claim 11 apply for claim 15 in its entirety.

Regarding claim 16, claim 16 recites "The signal-bearing medium of claim 12, wherein the ranking comprises an initial compression level of the first program." This claim reads on claim 3 above, (Initial compression level is no compression).

11. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Elcock et al. (U.S. Pub. No. 2005/0160308) as applied to claim 1 above, and in view of Potrebic et al. (U.S. Patent Number 7,088,910) and further in view of Garrison et al. (U.S. Publication Number 2005/0135779).

Regarding claim 9, grounds for rejecting claim 4 apply for claim 9 in its entirety.

12. Claims 13, 17 – 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Elcock et al. (U.S. Pub. No. 2005/0160308) as applied to claim 1 above, in view of Potrebic et al. (U.S. Patent Number 7,088,910), Ernst et al. (U.S. Publication Number 2004/0103215) and further in view of Garrison et al. (U.S. Publication Number 2005/0135779).

Regarding claim 13, all the limitations of this claim have been analyzed in relation to claims 1, 2, 3 and 4 above.

Regarding claim 17, Elcock et al. discloses a digital video recorder (Fig. 1, 110) comprising: a processor (Fig. 1, 130); and a memory (Fig. 1, 140) encoded with instructions, wherein the instructions when executed on the processor comprise: if a threshold (maximum storage threshold) is exceeded changing the compression level of a program (see Fig. 3, step 310). All the remaining limitations have been analyzed inn relation to claims 1, 2, 3 and 4 above.

Regarding claim 18, grounds for rejecting claim 14 apply for claim 18 in its entirety.

Regarding claim 19, grounds for rejecting claim 11 apply for claim 19 in its entirety.

Regarding claim 20, grounds for rejecting claim 16 apply for claim 20 in its entirety.

Regarding claim 21, claim 21 recites, "The digital video recorder of claim 17, wherein the instructions further comprise: making the first program as having the compression level previously changed." This claim reads on claim 3 above. The determination of the need to select a program for compression based on previous level of compression has in it the step of identifying the program as such.

Regarding claim 22, this claim is a system claim corresponding to the apparatus claim 17. Therefore claim 22 is analyzed and rejected as previously discussed with respect to claim 17.

Regarding claim 23, grounds for rejecting claim 19 apply for claim 23 in its entirety.

Regarding claim 24, grounds for rejecting claim 20 apply for claim 24 in its entirety.

Regarding claim 25, grounds for rejecting claim 21 apply for claim 25 in its entirety.

Therefore, the invention as a whole would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made, absent unexpected results to the contrary.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Cooper et al. (Pub. No. 2004/0237104), Boston et al. (U.S. Pub. No. 2001/0052131 and 2004/0101272) and Willes et al. (U.S. Pub. No. 2005/0120128), Frost et al. (U.S. Pub. No. 2002/0039483) and Hobson et al. (U.S. Pub. No. 2001/0052131) are cited to teach compression of programs as a way of saving storage space.

Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mitiku Debelie whose telephone number is (571) 270 1706. The examiner can normally be reached on Mon - Fri 8:00 - 5:00 ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thai Tran can be reached on (571) 272 7382. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MD
07/26/2007

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